

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-29 (canceled).

Claim 30 (previously presented): A method of manufacturing a Ta sputtering target, comprising the steps of:

forming a Ta ingot or billet by melting and casting a Ta raw material having a purity of 4N5 (99.995%) or greater;

forging the ingot or billet, and after said forging step, recrystallization annealing the ingot or billet a first time at a temperature of 1373K to 1673K;

after said forging and first recrystallization annealing steps, forging the ingot or billet and then recrystallization annealing the ingot or billet a second time at a temperature of 1373K to 1673K; and

after said forging and second recrystallization annealing steps, further forging or rolling the ingot or billet, and thereafter, conducting additional recrystallization annealing of the ingot or billet at a temperature between a recrystallization starting temperature and 1373K;

an average crystal grain diameter of the target being made to be a fine crystal grain size of 80 μm or less and the target being made to have no uneven macrostructure in the form of streaks or aggregates on a surface of the target and inside of the target.

Claim 31 (canceled).

Claim 32 (previously presented): A method according to claim 30, wherein said additional recrystallization annealing conducted after said further forging or rolling step is conducted at a temperature of 1173K.

Claims 33-34 (canceled).

Claim 35 (currently amended): A method according to claim [34] 30, wherein said ~~rolling or forging~~ step performed immediately before said first recrystallization annealing step is a cold extend forging step.

Claim 36 (currently amended): A method according to claim 35, wherein said ~~cold forging and further cold forging~~ and forging or rolling steps performed immediately before said second and ~~third~~ additional recrystallization annealing steps, respectively, are cold mix forging steps.

Claim 37 (currently amended): A method according to claim 36, wherein said ~~third and fourth~~ additional recrystallization annealing steps ~~are~~ step is conducted at a temperature of 1173K.

Claim 38 (previously presented): A method according to claim 37, wherein said fine crystal grain size of the sputtering target is 30 to 60 μ m.

Claim 39 (new): A method according to claim 30, wherein said melting of the Ta raw material in said forming step is electron beam melting.

Claim 40 (new): A method according to claim 39, wherein the Ta ingot or billet produced by said forming step has primary crystal grains of a diameter of roughly 50mm.

Claim 41 (new): A method according to claim 30, wherein said forging step after said first recrystallization annealing step is cold forging.

Claim 42 (new): A method according to claim 41, wherein said cold forging and second recrystallization annealing steps completely eliminate all heterophase and irregular crystal grains from the Ta ingot or billet.

Claim 43 (new): A method according to claim 42, wherein said further forging or rolling step after said second recrystallization annealing step is cold forging.

Claim 44 (new): A method according to claim 43, further comprising, after said additional recrystallization annealing step, the steps of cold rolling the Ta ingot or billet, and thereafter, conducting recrystallization annealing of the Ta ingot or billet for a fourth time at a temperature between a recrystallization starting temperature and 1373K.

Claim 45 (new): A method according to claim 44, further comprising, after said fourth recrystallization annealing step, the step of forming a sputtering target from the Ta ingot or billet such that said target has an average crystal grain diameter of a fine crystal

grain size of 80 μm or less and has no uneven macrostructure in the form of streaks, aggregates, and wrinkle shaped defects on a surface of the target and inside of the target due to the previous elimination of all heterophase and irregular crystal grains from the Ta ingot or billet.